

CONTENTS

Executive Summary	i
Acknowledgements	vii
Listing of Tables, Figures, and Photographs	x

SECTION 1: INTRODUCTION

Background	1
Management Goals and Objectives	2
(A) Resource Protection	2
(B) Research	3
(C) Interpretation and Education	3

SECTION 2: THE SANCTUARY ENVIRONMENT

Regional Setting	6
(A) Sanctuary Location and Boundaries	6
(B) Regional Access and the Role of the Sanctuary in the San Francisco Bay Area	6
Sanctuary Resources	6
(A) Environmental Conditions	8
(B) Biological Resources	11
(C) Cultural and Historic Resources	22
Sanctuary Uses	24
(A) Recreation	24
(B) Commercial Fishing and Mariculture	28
(C) Shipping and Other Marine Activities	30
(D) Education and Interpretation	30
(E) Scientific Research	32
(F) Military Operations	32
Existing Jurisdictions and Management	32
(A) Sanctuary Management	32
(B) Federal Activities	33
(C) State and Local Activities	33

SECTION 3: ACTION PLAN

Overall Management and Framework	40
Guidelines for Determining Management Actions	41

Resource Protection	52
(A) General Context for Management	52
(B) Regulations and Policies	52
(C) Surveillance and Enforcement	54
(D) Contingency Plans for Major Emergencies	55
(E) Encouraging Compatible Use in the Sanctuary	56
Research	56
(A) General Context for Management	56
(B) Topical Directions	56
(C) Guidelines for Management of the Research Program	58
(D) Additional Requirements of the Research Program	58
Interpretation and Education	59
(A) General Context for Management	59
(B) General Policies and Guidelines	59
(C) Strategy	60
(D) Programs	60
(E) Facility Development	63

SECTION 4: ADMINISTRATION

Administrative Framework	65
--------------------------------	----

APPENDICES

Appendix 1 — Sanctuary Site Coordinates Gulf of the Farallones National Marine Sanctuary	67
Appendix 2 — Recent and Ongoing Research Projects Funded at the Gulf of the Farallones National Marine Sanctuary since 1982	68
Appendix 3 — Aquatic Birds Found within the Gulf of the Farallones National Marine Sanctuary	69
Appendix 4 — Marine Mammals Found within the Gulf of the Farallones National Marine Sanctuary and their Status as Residents	70

CONTENTS

APPENDICES, cont.

Appendix 5 — Management Roles and Responsibilities	71
Appendix 6 — Relevant Laws and Regulations Pertaining to the Management of Marine Resources within the Gulf of the Farallones National Marine Sanctuary (Resources)	74
Appendix 7 — Relevant Laws and Regulations Pertaining to Marine Special Protected Areas within the Gulf of the Farallones National Marine Sanctuary	75
Appendix 8 — Relevant Laws and Regulations Pertaining to the Management of Marine Activities within the Gulf of the Farallones National Marine Sanctuary	76
Appendix 9 — Gulf of the Farallones National Marine Sanctuary Regulations	77

LITERATURE CITED AND PERSONAL COMMUNICATIONS

79

LISTING OF TABLES, FIGURES AND PHOTOGRAPHS

TABLES

Table 1 Management Issues and Actions	42
Table 2 Summary of Actions	51

FIGURES

1. Regional Context	v
2. Bathymetry	7
3. Sediments	9
4. Marine Bird Nesting Areas	13
5. Marine Bird Concentrations	15
6. Pinnipeds	17
7. Cetaceans	21
8. Marine Plants	23
9. Sportfishing and Marine Recreation	27
10. Commercial Fishing and Mariculture	29
11. Shipping and Other Marine Activities	31
12. Marine Protected Areas	35
13. Management Framework	39
14. Priority Areas for Resource Protection	53

PHOTOGRAPHS

1. Humpback whale in the Gulf of the Farallones. Photo by Jim Cabbage	i
2. Herring season in Tomales Bay. Photo by Richard Allen	ii
3. Sanctuary interpretive program. Photo by Nancy Stone	iv

4. Sanctuary administrative headquarters at GGNRA. Photo by Richard Frear	iv
5. Winter swells in the Sanctuary. Photo by Nancy Stone	vi
6. Bodega Bay. Photo by Nancy Stone	1
7. Sanctuary vessel. Photo by Nancy Stone	3
8. Northern right whale dolphins. Photo by Ken Balcomb	5
9. Fog over the Farallon Islands. Photo by Bruce Grinnell	10
10. Black-footed Albatross. Photo by Dan Brown	11
11. California Sea Lion. Photo courtesy Marin Skin Diving	18
12. Whale-watching at Point Reyes. Photo by Dan Suzio	24
13. Tide-pooling at Duxbury Reef. Photo courtesy Point Reyes National Seashore	25
14. Pacific ocean patterns. Photo by Frank Balthis	37
15. Clamming at Tomales Bay. Photo by Nancy Stone	40
16. Tomales Bay catch. Photo by Nancy Stone	57
17. Sanctuary public education program. Photo by Nancy Stone	61
18. Gulf of the Farallones National Marine Sanctuary. Photo by Nancy Stone	65